WHAT THE DUCK

An Architectural Narrative of Human Intervention on Geological Forces
Contents

03 STATEMENT

04 ABSTRACT

07 ESSAY

29 PROGRAM

39 SITE

51 PRECEDENTS + CASE STUDIES

65 BIBLIOGRAPHY

72 PROJECT PROPOSAL
Satire is a literary device that can be applied to the medium of architecture in order to create social commentary about human disruption in the natural world. Human error and over-consumption have led to the formation of garbage patches in the ocean that can be transformed into habitable spaces through architectural intervention through the lens of a dystopian narrative.
Barry Bergdoll, a professor at Columbia University states, “Satire opens the mind even as it leaves the mouth gaping... and it turns out to have been an inherent ingredient in the symbiotic rise of public debate and modernization since the mid-18th century.” Satire allows an author to depict a direct criticism of something or someone by creating a mirror in which the result is distorted. Satire makes reality easier to bear and provides a comical spin on examining the world in which we live.

A satirist does not have the power to see the future but has the power to understand what kind of world we live in and share with others. Architecture, similar to other creative mediums like art, literature, and comedy has the possibility to tell a story while mocking and criticizing a topic.

Architects Rem Koolhaas and Stanley Tigerman have applied satire and irony to architecture in various ways in order to convey a specific message or experience to the viewer. Rem Koolhaas used irony to create social commentary through dystopian concepts and amplified the principle that in order for something to be satire, it must closely examine a certain topic and be clear in its criticism of society in order to be successful. Stanley Tigerman applied literary and philosophical ideas to create a satirical set of drawings called Architoons.

This project uses the philosophy of seasteading and the desire to abandon modern society through ocean living as a way to narrate a satire about ocean pollution and humans who have decided to create a trash island society. By using architecture as a tool for representation, I will develop this satirical narrative critiquing the garbage patches in the oceans that were formed from our own actions and carelessness.

Satire takes an idea and flips it on its head, revealing a new understanding

By Author
THESIS ESSAY
Introduction

Satire is the “use of humor, irony, exaggeration, or ridicule to expose and criticize people’s stupidity or vices, particularly in the context of contemporary politics and other topical issues.” Satire has been used as a literary device and political tool dating back to Ancient Egypt in order to convey a specific message regarding a certain topic. As Sigmund Freud explains, a blatant statement of facts, no matter how funny it may be perceived does not create a joke.2

In today’s media-saturated world, humor has become an influential form of communication that is effective in questioning urban culture and the built world. Cartoons, caricature, and parody have long been tools of architectural criticism, protest, and opposition in order to highlight uncertainties of society.1

“Satire is sort of a glass, wherein beholders do generally discover everybody’s face but their own, which is the chief reason for that kind of reception it meets in the world, and that so very few are offended with it.”4 If satire acts as a mirror to society one must realize that the mirror image is a distortion of reality, not its direct copy but an abstraction that has been exaggerated in order to express criticism. Satire makes reality easier to bear and puts a comical spin on looking at the truth in the world.

This thesis looks at how architecture can be used as a satirical tool to create social commentary about human impact on the environment.

An object can be distorted through a specific lens.
By Author
Satire as a Literary Device

Satire in literary forms has had an extremely long history, and it is unclear when it may have began. Certain stories from the Old Testament can be interpreted as satire such as “The Book of Esther.” In this story the King’s minister, Haman threatens to kill all the Jews, when Mordecai, a Jew, refuses to bow to him. With help from Esther the Queen, Mordecai saves the Jews and is honored by the King, while Haman is hung. Haman is hung in the very gallows he had built to hang Mordecai.¹ This narrative can be understood as a political satire that critiques those that abuse their power.

Satire is often used to criticize wealth and power. In “Dinner With Trimalchio” from Petronius’ Satyricon written during the Roman Empire, Trimalchio is an excessively wealthy man who flaunts his money in a way that is almost gaudy to the point of being untraditional. Trimalchio invites guests over to his house and serves them an elaborate meal. During the meal, one of guests says, “Enough’s enough,” indicating that there comes a point that this lavish lifestyle is too much. But ironically, this character is eating all the food he can. He is able to recognize that he has had enough to eat, but still desires more.² Eventually there will come a point where Trimalchio will be too full to eat, and his life of excess will cause his downfall. Trimalchio represents Rome, and eventually Rome as an empire will not be able to handle everything it has conquered and desired and will inevitably collapse. Trimalchio is the ideal example of excess of wealth leading to misery. This story has been interpreted and applied to other satires throughout history including F. Scott Fitzgerald’s The Great Gatsby.

When applying the literary device of satire, it is common to use fables, short stories, and allegories as a basis for forming the satire. A modern example of a fable can be seen in George Orwell’s *Animal Farm* (1945) in which animals are used to illustrate Joseph Stalin’s dictatorship in Russia. In the novel, animals on an imaginary farm in England overthrow their human oppressors and establish a socialist state. “Man is the only creature that consumes without producing. He does not give milk, he does not lay eggs, he is too weak to pull the plough, he cannot run fast enough to catch rabbits. Yet he is the lord of all the animals.”¹ Initially the freedom from human control promises an animal utopia, but through the pigs demand for power and the idea that “all animals are equal but some are more equal than others,”² the once envisioned utopian society descends into chaos. The use of animals in this story allows a reader to be entertained on a superficial level as “A Fairy Story,” Orwell’s chosen subtitle. When analyzed, the story is quite gruesome and dark to simply be understood as a fable. Although the book was intentionally free from historical references, the clear resemblance of the pig Napoleon to Stalin and the pig Snowball to Trotsky allowed the reader to make the connection that Orwell used this book to criticize dictatorship and the increase in authoritarianism in democratic governments.

---

² Ibid
Satire as an Architectural Tool for Social Commentary

Architecture has the ability to convey a message through visual representation. Through the use of drawings and renderings, architecture has the capability to tell a story or fable. This does not need to become a built structure, but takes on meaning as a conceptual idea that has the ability to create social commentary.

“Stanley starts with a verbal idea, as a jumping off point... it’s confusing because you don’t know whether it’s literature, sculpture, painting, collage or whatever.” - Frank Gehry

Stanley Tigerman used literature and references outside the field of architecture as a way to explore irony and create a medium of form and expression for self critique and reflection. Tiegerman created a series of drawings known as Architoons which examine the existential concept of the “lived experience” in the context of architecture. These graphic drawings are created through contradictions and the artist’s subjective experience in an animated world. “The Architoons represent an interface between architectural theory ‘written’ with images, a memoir of a career as an architect and author, and the diagram of relationships of future buildings.”

The Architoon, “Angel on a Broken Column with Daisy House” portrays a cherubim in the face of an existential crisis. He is standing on a column that has broken under his feet while stretching to hold the umbilical cord of one of his “creative offspring,” the Daisy House, which sits above the clouds.

Architecture drawings have the capability to create satire through the way they are envisioned. “Architectural drawing is a device that brings the Earth into a matters of concern; it makes visible absent things, synthesizes sciences and scales of knowledge on complex environmental issues, and engages actors and scales otherwise unaddressed.” Similar to storytelling, “drawing is always re-drawing - borrowing, misusing, appropriating.” A drawing forms an argument about the world and speculates the imaginative with the realistic and proposes a challenge to the existing world. Architectural drawing and satire together challenge the viewer to question how they may perceive the world and their role within it.

2 Ibid
3 Ibid
5 Ibid
Ocean Gyres as a Driving Force

A feature of satire is that it must “satirise” something and have a target that serves as a direct criticism of something or someone.¹ In this thesis, I will be examining the human overindulgence and recklessness through pollution forming plastic gyres in the ocean.

Trash in modern day society is designed to be on the peripheries of society. A plastic bag that holds groceries is put in a trash can the next day or even a recycling can. The trash is collected early in the morning to avoid disturbance and the plastic bag is gone. Out of sight out mind. While on the way for the bag to be placed in a landfill on the outskirts of a city, a bag can fly off the truck and into the street, and then end up in the sewage system and later in the ocean.² This is one example of how human error and lack of awareness has led to the mass amounts of trash in the ocean.

Run-off from landfill flows into nearby rivers or the ocean. Fish consume plastics mistaken as food. Fisherman often fail to retrieve fishing gear. Vessel may accidentally leave waste behind. Industrial products are improperly disposed. Litter from inland gets brought to the ocean from rivers. Beachgoers litter the coast. Boats deposit garbage overboard. Sewers are sometimes drained directly into the ocean.

Ways trash ends up in the ocean.

By Author

Sourced from: Diagram based on UNEP - Marine Litter Vital Graphics
It is estimated that approximately 1.15 to 2.41 million tons of plastic enter the ocean each year. Once the plastic enters the gyre, a strong spiraled ocean current, it is unlikely they the plastic will leave. Overtime plastic is degraded into smaller microplastics, causing harm to fish and sealife digesting them.¹ Humans then consume this fish, thus digesting the same plastic that was thrown away as trash. As more plastic is discarded each year, large garbage patches form in the ocean and continue to grow. Today, the largest patch is located between California and Hawaii, known as the Great Pacific Garbage Patch. This patch covers about 1.6 million square kilometers making it twice the size of Texas. In the book Gyre: The Plastic Ocean, the author writes:

City dwellers’ trash

Fouling shores of paradise.

More is on the way.²

The Human Role

Humans play an essential role in the environmental change that has occurred in the last century and have triggered negative effects as seen through climate change on the natural world. The threats to society are very serious, yet there has been little momentum for change partially because of “abysmal distance between our little selfish human worries and the great questions of ecology.”

In Bruno Latour’s essay “Love Your Monsters,” he poses the question of compassionate responsibility in reference to Frankenstein. According to Latour, “We confuse the monster for its creator and blame our sins against nature upon the things we’ve made.” In applying Latour’s analysis of Frankenstein to the current crisis of a throw away society, we have put blame on plastic itself rather than self reflection on overconsumption and one’s own selfishness.

As humans become more and more destructive in the world from a lack of self reflection and hubris we must ask ourselves:

“How can architecture conceptualize a planet on which humans have become involved in vast geological forces?”

---

2 Ibid
3 Ibid
Seasteading

Our planet is suffering from natural disasters that are heightened by human influence triggering climate change across the globe. The ocean has potential to become a new type of reality for people that choose to live independent of restrictions of a traditional citizenship. Two-thirds of the world is ocean and thus has the possibility to become a resource for communities. Oil platforms and cruise ships are two current examples of how seasteading is not a distant thought but a near future. Jacques Rougerie, a marine architect, stated, “It is from the ocean that will be born the destiny of civilizations to come.”1 Humans are running out of space on land, while simultaneously destroying the world. The question is posed, “What if the way to decrease ocean pollutions is to increase ocean populations? Is living on the ocean a way to restore the environment, enrich the poor, cure the sick, and liberate humanity from politicians?”2 Land dwellers allow pollution into the ocean because there is a disconnect; people do not see the effect their actions are directly having on the ocean. Seasteaders theoretically would be able to solve this disconnect because they will see the polluted ocean on a daily basis and work to clean it.

“She generally gave herself very good advice, (though she very seldom followed it).”3
- Alice’s Adventures in Wonderland & Through the Looking-Glass, Lewis Carroll

Ideally, seasteaders would work to better the world, but once out on sea how would this actually come into existence? Trash may be collected and gathered, but this will not address the root of the problem; therefore trash will continue to pollute the ocean exponentially. Seasteaders, much like Alice are unable to follow their own advice. Once plastic has entered the world it can either be recycled, burned, enter a landfill or end up in the ocean. By simply being in the ocean a seasteader cannot solve ocean pollution.

2 Ibid
A Seastead for the 28,800 Rubber Ducks Lost at Sea the Environmentalists, Oceanographers, and Fools that Went to Find Them

In a storm in the North Pacific in 1992, a cargo ship container carrying rubber ducks plummeted into the ocean. After thirteen years of the ducks voyaging across the pacific, a few ducks were found on the coast of Washington and Alaska. A group of “environmentalists, beachcombers, oceanographers, and fools” went on a search to find the lost rubber ducks at sea.

This thesis is based on a fable in which the Fools find their beloved rubber ducks and see the home they have begun to make for themselves in the Great Pacific Garbage Patch. Rather than bringing the ducks home, the group decides to form a seastead from trash and live on trash islands in the Pacific Ocean.

---


2 Ibid

The Tale of the Rubber Ducks and their Plastic Paradise

With a harsh tilt of the ship, all the rubber ducks were crammed into the side of a shipping container. The ducks were making a long journey from Hong Kong to the US, but soon realized from the jolting movement side to side that they were in a storm and feared for their lives. The Ducks tried to stay positive, but with one large wave, the shipping container poured out into the ocean releasing the 28,800 rubber Ducks. The Ducks had become fast friends as they were squeezed together for a long time. When they entered the ocean, they all were stunned to realize that they were able to float. Unlike most rubber ducks, these ducks contained no hole in the bottom, so they would continue to float indefinitely. A few days later when the storm calmed down, the Ducks banded together and decided that the ocean would be their new home. A few of the Ducks had gotten swept away by the currents, but the rest decided they would stick together. While floating in the gyre, the ducks noticed the vast amount of trash around them. The Ducks would use the many trash islands they discovered as temporary homes, before deciding to continue floating. Over a period of ten years the Ducks grew to love their trash-filled lives. Like all the trash in the ocean, they had all been discarded from society.

Ducks Fall into the Ocean during a storm while being shipped across the Pacific.

By Author

Collage Sources:
North Pacific Subpolar Gyre

Location of where the Ducks Spilled out of the Shipping Container

By Author
Ten years later a beachcomber strolling along the coast of Washington noticed a bright yellow duck and was intrigued how a rubber duck had washed up on the coastline. After a few days had passed, an environmentalist found a duck in Alaska. Every few weeks another duck was found on the coastline of the Pacific. Within a month of the first duck being spotted a group of oceanographers, environmentalists, and beachcombers known as Fools had formed an online group where they discussed where the ducks where coming from and their disgust with society who did not seem to care. Along with the rubber Ducks had washed ashore a whale with a stomach full of plastic. The Fools grew tired of over consumption and the capitalist single use society they were contributing to and decided they would set sail in search for the rubber Ducks. The society that they were living in had no interest in understanding how so many acts of pollution go unnoticed, even a treasured childhood toy like rubber Duck floating in the Pacific Ocean.
The Fools cut off all ties with their family and friends back home and set sail on a journey to find the rubber Ducks. The oceanographers knew that there is one major vortex in the Pacific Ocean, the North Pacific Gyre. The Fools decided they would sail into the gyre in hope to discover the rubber Ducks. After sailing for a few days they noticed plastic all around them and discovered they had entered the Great Pacific Garbage Patch. The Fools had heard myths about the Texas sized garbage patch in the middle of the ocean, but had never believed it to be true until the boat was surrounded by millions of specks of plastic endlessly floating in the ocean. As the boat was swirled into the vortex between California and Hawaii, a Fool noticed a bright yellow speck in the distance. As they got closer, they saw thousands of rubber Ducks floating in the ocean together. The Ducks had gathered on small clumps of trash that had began to form islands. The Fools saw how the Ducks had been living in the ocean for ten years and decided to join them and their trash-filled lifestyle.
The Fools and Ducks began designing and building infrastructure to create a large trash island that would have enough space for them all to live together. The island structure acted as human intervention on what was previously seen as a geological force. Now that humans had caused the vast pollution in the ocean, there are now plenty of trash to form land and create livable areas. The architecture of the island allows the the collection of trash beneath the ocean surface, while providing spaces to habitat above the surface. The fools used their knowledge of gravity and natural forces and familiar built forms to create an “ocean skyscraper”. Although rather than going high into the sky, the form goes deep into the ocean. By using gravity to their advantage the trash island would be able to stay afloat, while the built structure beneath the ocean's surface would be able to collect trash.
The Fools built a vortex around the island utilizing found trash like water bottles and plastic containers. These items were formed to make trusses as a spiral around the center of the habitat. The trusses were attached to found fishing net which collected trash that was pushed towards the island from existing currents. This would allow fools to continue to collect trash and build a mountain-like form above the ocean. As trash began to build up, the fools built a ramp around the mountain. This would allow them to continue to bring trash up and down the mountain to expand and develop the architecture.
Life on the island was a trash-filled plastic paradise. One could sunbathe on trash or search for dead animals that washed ashore from digesting plastic. On the island the Fools and Ducks would eat delicious fish filled with plastic pellets they had caught earlier that day, and would wear clothes made from plastic they found floating in the ocean. Sometimes, they even found fully intact t-shirts and sweatpants.

The Island was a place for leisure and relaxation. The trash island became a place the fools were able to escape the world around them and enjoy themselves in "paradise."
As time passed the Fools passed away from old age, ingesting plastic from consuming plastic filled food, and toxic waste poising from inhaling plastic fumes. The Fools thought they were being sustainable by not contributing to waste production, but the world around them continued to produce rapidly. When you zoom out from the Fool's Plastic Paradise, it is now surrounded by a trash mountain range. Trash continued to build up in the world and be pushed into the peripheries of society until the entire globe was covered in trash.
Conclusion

Architecture has the ability to use satire in order to develop a narrative through representation. By looking at how humans have caused the destruction and intervened in geological forces, the architectural narrative becomes a mirror for self reflection in which the world is exaggerated and distorted through satire. This thesis explores how an architectural narrative can apply satire in order to create social commentary. Through looking at Garbage Patches in relation to waste production one can see it is a vast issue that is triggered by over consumption and a capitalist throw-away society. Architecture seeks to portray a narrative that demonstrates the scale of the problem through the story of the rubber Ducks and the Fools that went to find them.
PROGRAM
When the oceanographers, environmentalists, and beachcombers, known as Fools, went on a journey for the Ducks they understood they were going on a journey into an unknown place. They had little knowledge of the ocean besides what they had read from textbooks.

“The real is suspended, if only momentarily to reveal a truth that lurks beneath the surface of earth.” - Nader Tehrani

The Fools went to the ocean to discover what they believed to be the unfamiliar and foreign. The rubber Ducks presented a sense of nostalgia in the vast and unknown ocean. The ocean which they envisioned to be foreign was filled with the most intimate objects they themselves once carelessly had tossed and had never thought of again. Next to the rubber Ducks floated toothbrushes and food containers. A place once thought of to be unexplored ended up being made up of the Fool’s former belongings. The most oppressive world is the world in which humans have created.

“Man is born free, and everywhere else he is in chains.”
-Jean-Jacques Rousseau

The Fools are scholarly, yet ignorant of their own actions. They lack self awareness and believe they are too good to have been part of the problem that led to Plastic Paradise.

The Paradise is built on contradictions, foreign and familiar, scholarly yet ignorant. The island tells a story of the world’s residue and surplus and the items that have been pushed so far to the peripheries that there is nowhere left for the trash to go, but to form new land in the ocean.

This world is composed of a new reality with scientific research weaved in creating a context for the viewer to understand a project that surpasses a realistic perception. Images of the world are distorted allowing the amplification of the depth of ocean making a reality viewed in an abstract way. Our perception is interrupted to examine the potential of the natural world past the constraints of today’s reality.

Trash has been pushed into the peripheries of society and is becoming as plentiful as the amount of fish in the sea.

By Author
The island is a means for survival and is powered through necessary activities. The Fools must sleep, eat, and provide for themselves. The primary activity on the island is trash collection. The island itself has taken on the role of a marine landfill. The landfill is what forms the land. As more trash is collected, the island is able to grow and expand exponentially. As for means of survival the Fools must sleep and fish for fuel. The trash collected is formed into modular sleeping dwellings and fishing area is designated for the fish filled with plastic pellets to be caught. The island although designed for survival allows for optional and social activities in which the fools can gather with the rubber Ducks.

The Fools came to the ocean as an escape from reality, but stayed for a new relaxing lifestyle. The island took on a resort like space. The fools took mud baths in micro plastics at the spa, swam in the infinity pool constructed of water bottles and fishing nets, and had massages on tables constructed of plastic food containers and water bottles. The air was filled with the scent of garbage flooding the rooms in the island, as if a blanket of blissful unawareness was placed over the island.
The built world can learn from nature to be adaptable and change over time. A tree grows as time passes, and a trash island can grow as time allows for more pollution build-up. The moving ocean can allow the island to not be a static object that resists movement but, rather an object that floats and moves with the water, with gravity and plastic keeping it afloat.
In order for the island to stay afloat the island must go deep. Skyscrapers go high, but gravity informs us that skyscrapers should actually go deep. Why do we build up when gravity is a force that is pushing us down? In the age of climate change, how can architecture inform the world in which humans have disrupted the natural world?
Ocean skyscraper as a means to collect trash for daily living and land formation.

By Author
Top Ten Items Found from Beach Cleanups

- Cigarettes/ cigarette filters: 24%
- Food wrappers/ containers: 14%
- Plastic beverage bottles: 13%
- Plastic bags: 11%
- Caps/lids: 10%
- Cups/ plastic silverware: 8%
- Straws/ stirrers: 7%
- Glass beverage bottles: 6%
- Paper bags: 3%
- Beverage cans: 4%

---

International Coastal Cleanup 2012

<table>
<thead>
<tr>
<th></th>
<th>Items</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>cigarettes/ cigarette filters</td>
<td>2,117,931</td>
</tr>
<tr>
<td>2</td>
<td>food wrappers/ containers</td>
<td>1,140,222</td>
</tr>
<tr>
<td>3</td>
<td>plastic beverage bottles</td>
<td>1,065,171</td>
</tr>
<tr>
<td>4</td>
<td>plastic bags</td>
<td>1,019,902</td>
</tr>
<tr>
<td>5</td>
<td>caps/lids</td>
<td>958,893</td>
</tr>
<tr>
<td>6</td>
<td>cups/ plastic silverware</td>
<td>692,767</td>
</tr>
<tr>
<td>7</td>
<td>straws/ stirrers</td>
<td>611,048</td>
</tr>
<tr>
<td>8</td>
<td>glass beverage bottles</td>
<td>521,730</td>
</tr>
<tr>
<td>9</td>
<td>beverage cans</td>
<td>339,875</td>
</tr>
<tr>
<td>10</td>
<td>paper bags</td>
<td>339,875</td>
</tr>
</tbody>
</table>

The Fools use the most available resources most. Common building methods are water bottle trusses, with plastic containers, plastic bags and microplastic as the connectors. The most found resources become the most used in the building and construction of the garbage island.

SITE
“Burn it, Bury it, Recycle it, or Send it on a Caribbean Cruise.”
-former New York City Mayor Ed Koch

Trash is seen as an undesirable symptom of consumer society. Rather than addressing the cause of the problem, the world has resorted removing trash from sight into the peripheries of society.¹ Today trash has been pushed so far out of sight it is swirling in our oceans.

The ocean is made up of five large gyres, defined as a large area formed from ocean currents around a spiral point. The largest gyre is the North Pacific Subtropical Gyre, and this gyre is known for the vast amount of debris it collects, known as the Great Pacific Garbage Patch. Because plastic floats and is visible “gyres are colorful testaments to human consumption.”²

The site for this thesis exists within the Great Pacific Garbage Patch. When the shipping container of ducks fell into the Pacific Ocean, they were transported by the swirling currents into the garbage patch.

Criteria:

An area within the Pacific Ocean that was located en route when the ducks were being shipped from Asia to the US.

The Site has to address the existing movement of the ocean currents and how trash moves.

A small area within a very large Garbage Patch that has a high concentration of trash.

---

The North Pacific Gyre is home of the Great Pacific Garbage Patch, which is made up of 3.2 million tons of trash and is approximately twice the size of Texas.

By Author
The US and Asia make up the largest waste producers in the World. Much of the waste from these countries ends up in the bordering oceans. The Fools grew tired of contributing to the growing issue of pollution in their bordering ocean, and thus they decided that they would cut ties with consumer society and form their own society in the ocean with the rubber Ducks they hoped to find.
The Top Five Domestic Waste Producers (in 2010)

1. California  28,216,903 tons
2. Texas  22,170,707 tons
3. Florida  17,161,312 tons
4. Illinois  15,150,000 tons
5. Michigan  12,086,000 tons

Waste from California enters the Great Pacific Garbage Patch, contributing to the largest patch of waste in the ocean. The Fools thought the Ducks would be located in the center of the garbage patch off the coast of California.

By Author
In 2010 America produced 250 million tons of trash, and 31 millions tons of it were plastic. When plastic is thrown away it is possible it could end up in the ocean and remain there indefinitely, slowly degrading from salt and sunlight or eventually wash up on a coastline. “Everything is interconnected- streets and landfills connect to storm drains, which lead to rivers and estuaries, which empty into the ocean. Once that bag enters the marine environment, it can travel hundreds of miles from its starting point, carried by winds and currents.”

The Ducks became a number adding to the vast amount of trash that ends up in the ocean. They swirled into the vortex of the Great Pacific Garbage Patch forgotten for ten years, until the Fools looked for them. Tired of consumer culture, the Fools used their prior knowledge of ocean currents to look for the Ducks. They sailed in the direction of the currents and predicted the Ducks would be at the heart of the garbage patch, roughly halfway between California and Hawaii.

---

2 Ibid
Kamilo Beach is located on the easternmost edge of the Hawaiian Islands. Kamillo translates to “twisting or swirling currents.” The ocean currents bring debris to the coastline. Centuries ago Hawaiians would gather logs that floated from the US, but today the beach is filled with plastic, making it the dirtiest place in the US and one of the dirtiest in the world. The beach has grassy hills that slope down to the water, but instead of being a pleasant place to spend an afternoon, the beach is predominately visited by scientists and environmentalists. Trash from Japan, Russia, and the US is swirls into the gyre and often lands on this coastline.1

1 Werft, Meghan. "A Beach in Hawaii Has Become One of the Dirtiest Place on Earth." Global Citizen, 2017
“This plastic sand is coming from all around the Pacific rim, swirling into a vortex which eventually brings it to these shores. This is the place where Hawaiians came to find bodies of people who were lost at sea. Nowadays, this beach is where we come to find what our throw-away society has done to the environment.”

- Environmentalist Charles Moore

The Trash Island proposed at this site would become a collection point to prevent trash from gathering at the coastline and would instead be used to create habitable communities.

By Author

SITE TWO

The Heart of the Great Pacific Garbage Patch

How the Ducks got to the heart of the Garbage Patch

By Author
The Great Pacific Garbage Patch is located halfway between Hawaii and California. The center of the GPCP has the highest density of trash. This allows the architectural intervention to easily collect and build off of the collected plastic. Today there are approximately 80,000 tons of plastic in the GPGP including the rubber ducks which is equivalent to approximately 500 jumbo jets. Our consumer society allows single use products to be a convenience in our daily lives, but this will result in a shrinking ocean where plastic is more plentiful than fish.

After examining both options for sites of my project, the heart of the Garbage Patch provides a more accurate representation of where the ducks ended up over time. When the ducks entered the gyre the currents led them to this area where much of the world’s trash resides.
CASE STUDIES + PRECEDENTS
Supertudio was a group of radical architects who "set out to undermine the certainties of modern movement architecture and design."  

1 This group did not build, but showcased their provocative concepts through photo-collages and exhibitions. For example, Il Monumento Continuo takes form as a gridded substructure, would cover the world “leaving the Earth as featureless as the smoothest desert, or, more to the point, as a wilfully low-brow, suburban-style western city.”  

2 Superstudio created commentary on globalization and how the the developing world was becoming a series of megastructures with culture being striped away. The success of this project lies in the relevancy it still has maintained overtime. The collage of pre-twin tower Manhattan inside the megastructure allows the viewer to apply the image to Manhattan today. *These images retain their power to hold the imagination; they are slick, clever, funny and make a telling point.*  

3 A founding member of Supertudio Adolfo Natalini wrote, “we started designing negative utopias like Il Monumento Continuo, images warning of the horrors architecture had in store with its scientific methods for perpetuating standard models worldwide. Of course, we were also having fun.”


2 Ibid

3 Ibid

4 Ibid

Rem Koolhaas famously investigated satire through a dystopian narrative in the Exodus, or the Voluntary Prisoners of Architecture looking at different social contracts for various institutions. Koolhaas’ thesis references the Berlin Wall, Ivan Leonidov’s utopia, and Superstudio’s Continous Monument, while looking at central London. In the “Institute of Biological Transactions” Koolhaas designs a world in which a hospital becomes a series of spaces where patients lie on a conveyor belt and are brought to different doctors in different rooms. This project is meant to be seen as social commentary on institutions rather than a design to be built and implemented in society. The project triggers the viewer to look inward and examine what might be wrong with how current institutions are currently functioning in society. Irony in architecture enters a theoretical realm of the discipline and allows one to see past architecture as just “things” and “ideas” and engage in creativity and cunningness.

2 Ibid
3 Image Sources: Ibid
Shortly after Trump was elected into office the architecture collective Partisans re-imagined what the developer might do to capitalize on the White House and its land. The team overlaid some of Trump’s most recognized projects with the White House, forming a series of new conceptual projects. Partisans director of Content and Culture said, “The series is our attempt to bring some levity and satire to an otherwise very dark moment in history.” The White House could be turned into a luxury apartment building or a resident only golf course. The collective also overlaid famous buildings including the Big Duck, which is wearing a toupee and a Taj Mahal casino located in New Jersey.

Unlike Superstudio’s Continuous Monument, this project does not maintain its relevancy over time. This project is only meaningful when Trump has power over the White House. The collective uses a seemingly inappropriate juxtaposition of buildings to convey a meaning of corruption and power, but was only relevant at that current moment in history.

2 Image Sources: Ibid
Clive Wilkinson Architects envisioned an endless horizontal workspace over the top of the London. The space is a new kind of co-working space ideal for both start-ups and existing businesses, with a variety of work-settings. Through designing voids as holes in a swiss cheese effect, tourists spots and historic sites remain while light and views through the space are created.

"Since technology has liberated people and businesses, and enabled genuine mobility, this proposition is not inconceivable, and solves time-related problems inherent in a massively densified city."1

This future plan allows one to walk upstairs to go to work and solves the current commuter problems in London. A GPS would be able to tell you where your friends and colleagues are whereby creating a new system for collaboration.

This project mocks our constant desire for work and simultaneous laziness to get places. Rather than taking the Tube, someone could take a vertical tube directly to their office. This exemplifies efficiency and shortness of commutes at the cost of a city. Similar to Superstudio, the approach of excess and exaggeration is applied to mock and criticize society and what is valued in daily life.

---

2 Image Sources: Ibid
OFFICE LEVEL

CITY LEVEL

Danish Artist Asmund Havsteen-Mikkelsen sunk a 1:1 model of Le Corbusier’s Villa Savoye. This project was intended to be a statement about the Brexit vote in England and Donald Trump’s election in the United States. The model is partially submerged as if it is currently sinking beneath the water.

According to the artist, this installation is a symbol of how the values of modernity have been swamped by technology. Recent elections saw digital manipulation from outside parties which led to the results of these two major elections. “The rise of new digital technologies together with the smartphone has allowed the emergence of a new situation,” Havsteen-Mikkelsen said.

“Every user has become his or her own media-platform, thereby allowing the targeting of specific information through the development of psychometric algorithms.” This has led to a feeling that a “certain sense of democracy has ‘sunk’.”

While this project indicates a notion of satire the message of democracy is not legible to the viewer. A building that might have been a better example of democracy is the Parthenon in Greece, as it was the foundation for democratic systems.

This piece references Stanley Tigerman’s “Titanic” in which Mies’s Crown Hall Building is partially submerged in Lake Michigan. Tigerman wanted to show the modernist movement sinking, but also had the opposite interpretation in which the building can be understood to be moving upward out of the water rather than sinking.

Le Corbusier expressed a sense of irony within his own work through the coexistence of contradicting elements. In reference to Villa Savoye, Vincent Scully a revisionist of Corbusianism observed that; “It is a closed system, complete. Inside it is the hermetic labyrinth of the mind, the special world of Cubism, of man-made forms pursuing the circuitous paths of intellectual quest indefinitely overlapping. And that internal universe... set in its exact opposite: in the Impressionist landscape and the empirical reality.”

References:
2. Ibid
Cloud-Cuckoo Land is a satirical project that examines the socio-political climate of Madrid and analyzes the current lifestyle and aspects of everyday life. This project specifically uses the play “The Birds” by Aristophanes to form a narrative about observations of the city. “This project is adopting the medium of myth and the human desire of transformation, as described in the play, in order to express the citizen’s need of escapism from the absurdity of modern life, by dedicating their selfhood to animality.” Cloud-Cuckoo Land uses mythological elements to rethink norms established in architecture. The project uses an architectural fable as a way to develop a metaphor through urban form. The idea of living as a bird formed the analysis of how an architect can view a city from above. The drawings illustrate a parasite on top of Madrid intended to disturb and satirise the world below.

Cloud-Cuckoo Land proposes a world where humans live as birds, and are assisted by technological devices that transform the existence and alter the spatial and formal attributes of architecture. “The premises of the fable are less important than the architectural possibilities of a position outside of normative relationships and the role this plays as a catalyst, a method for rethinking the physical environment and its expression of social structures.”

2 Ibid
3 Image Sources: Ibid
Analysis of Contemporary Socio-Political Context of Madrid.

Nectar Production.

Model of the Proposal on an Urban Scale.

Flying Device.

Initial Settlement Section.
AIRPOCALYPSE

DESIGN EARTH

In 2014 Beijing became so smoggy that residents began wearing air masks and rarely could see the sun. A new reality set in where humans could no longer take breathing for granted and the planet would soon become inhospitable. Airpocalypse reimagines the infrastructure of the world with the absence of the sun and the atmosphere. In Chinese cosmology, there were thirteen sun brothers in the sky, but together they made the world too hot for life to survive. A hero named Hou Yi shot down twelve of them with a bow and arrow forming holes in the stratosphere. The sun wells powered a series of capsules as a atmospheric habitat, greenhouse, biosphere, and a spaceship. On the dashboard of the spaceship, a series of snow globes hold the last breaths of city air from London, Mexico City, and Sao Paulo. Composed of unfinished fragments, “these drawings stage different attributes of reality and require the engagement of the reader to complete them as a total narrative.” The drawings are distorted in the X, Y, and Z axes allowing the implication of an abstraction within a implied reality.

2 Ibid
3 Ibid

View of climate world from Great Wall of China

Interior view of dashboard with the snowglobes of the cities
PLANETARY ARK

DESIGN EARTH

The animals go into the Empire State Ark. The collection of animals includes those launched into space on scientific missions and other species threatened by the sixth mass extinction in Earth’s history.

All Aboard the Cosmic Architekton

The animals enter space in their individual cubicles in the Empire State Ark.

“Planetary Ark is a collection of living animals that were launched into space on scientific missions to test the survivability of spaceflight for the human body, as well as for a wide variety of their species currently threatened by the sixth mass extinction in Earth’s history.” With climate change presenting an unknown future, animal species that are nearing extinction are sent out in individual cubicles on an ark to the International Space Station. “Once funding for the most expensive built structure is discontinued in 2024, the International Space Station is repurposed into microcosm of scientific experimentation on forms of life, what it means to be human, and the making of worlds.” This experiment allows scientists to tend to the animals and eventually the animals will resettle on earth in a few thousand years. Planetary Ark references the famous biblical story of Noah’s Ark, in which the animals were saved from a flood.

2 Ibid
3 Image Sources: Ibid
Disturbances in the “natural order have torn the fabric of the space-time continuum, and unexpected growths are seeping into our world - perhaps from our own future.” The use of augmented reality applications transform our mobile devices into ‘AR-scopes,’ and allows us to see into these parallel dimensions that co-exist and overlay what one perceives as reality.

On the sixth floor terrace of the Whitney Museum of American Art an augmented reality of an underwater vision is overlaid over the existing building. The Whitney is seen in the ocean among coral, rubber ducks, and plastic utensils representing the vast amounts of pollution in the ocean. This installation responds to human use and energy to form ‘ARscopes.’ This installation continues to grow and change as more people look at it over the course of a day. It reflects that the more humans interfere with the natural world, the more disturbances are formed.

“What we can say so far is that the growths seem to be an odd mixture of coral animals and plastic. They are clearly following principles of Lindenmayer systems, algorithmic, branching growth as is common in many corals. It is unclear however how the plastics are becoming incorporated into living systems, and what effects these coral-plastic symbioses will have on the larger ecosystems, especially on animals all along the food chain - up to human beings - who feed off of sea flora and fauna.”

“Unexpected Growth” is a commentary on climate change and that eventually water levels could reach high enough to begin to flood New York City. Does this installation exhibit a future in which the amount of plastic waste in the ocean surpasses the amount of fish in the sea?

2 Ibid
WORKS CITED
ANOTATED BIBLIOGRAPHY


Power triggers corruption and attracts criticism. This book examines the relationship between the powerful criticisms produced by the satirists. Political satire should be seen as a derivative from free speech that should not be censored. Satire is more frequently seen in democracy because of lack of ability to censor free speech. Although there are limits on exaggeration and distortion, satire can still be used as a way to criticize leaders. In Sacha Baron Cohen's "Borat", he interviewed people who were unaware their Anti-Semitic and Racist views would be broadcasted in a hit movie. This satirical film demonstrated a level of tastelessness that was very intentional by Cohen in order to show the reality of what people think. There is a important balance in satire that sometimes becomes so funny that the meaning behind the criticism is lost. Tina Fey's impression of Sarah Palin on Saturday Night Live became so funny that people stopped criticizing Palin's politics and began complimenting Fey's humor. The quality of satire varies but it is an essential tool in politics to question who is in power through using wit.


As a consumer we often assume we know where are trash comes from and how it is disposed, but one cannot always see the waste being produced such as material scraps from clothes and byproducts from electronics. In today's society trash appears to be inevitable but has trash always had an essential part in the world? The word trash is derived from the Scandinavian words trask, tras, and tros meaning “twigs removed from lumber"(Ghosn Jazairy 17). In current society this definition has been transformed to include remains from preparing an object, or when an object is no longer being used. Trash is formed only when an item is discarded and viewed as discarded and is only in existence to humans. Where humans have put trash has become an out-of-sight-out-of-mind entity for the public, architects, and planners. Trash is pushed to the peripheries of society and our cities have been designed to operate with as little presence as possible. This book examines Michigan's trash crisis through five landfill focused projects: Cap, Collect, Contain, Preserve, and Form. These projects redesign how one looks at landfills, recycling, burning, reusing, and reducing.


Geostories looks at the world with criticism and a sense of urgency from climate change that demands that the way we care for and design the Earth needs to be questioned and explored. This book acts as a manifesto on the environmental imagination that illustrates “the issues of climate change through geographic fiction invites readers to relate to the complexity of Earth systems in their vast scales of time and space." (Ghosn Jazairy 11) This book consists of a series of architectural projects that examine a large spectrum of environmental issues including oil extraction, deep-sea mining, landfill and space debris. This book is not to be seen as a literal toolkit to solve world problems, but as a way to view design in the age of climate change and look at Earth as a “matter of concern." (Ghosn Jazairy 23).


Satire is an timeless literary and political tool that has been used dating back to Ancient Egypt. John T. Gilmore looks what satire is and how it can be used. Satire often overlaps with other literary forms such as fables, short stories, and allegories that are not necessarily satirical on the surface level. Plato's allegory of the cave is often used as reference in satire although the cave in which prisoners cannot leave is not necessarily intended to be satirical on its own. The novel Animal Farm by George Orwell utilizes a long history of writing about animals to tell a darker story about animals rising up against humans and how revolutions can lead to dictatorships. An obvious feature of satire is that it must "satirise" something and have a target and be a direct criticism of something or someone. Jonathan Swift stated, “Satire is sort of a glass, wherein beholders do generally discover everybody's face but their own, which is the chief reason for that kind of reception it meets in the world, and that so very few are offended with it.” If satire acts as a mirror to society one must realize that the mirror image is a distortion of reality, not its direct copy, since the left and right are reversed. Satire makes reality easier to bear and puts a comical spin on looking at the truth in the world.

Rem Koolhaas once said, “We have to accept the world in all its sloppiness and turn that into a culture” (Petit 178). The trends in politics and art have turned the “sloppiness” of the world into sarcasm and laughter through irony and satire. The question is posed by Emmanuel Petit: “Can architecture be ironic?” The answers and opinions vary, but there is a growing interest in the last century in the topic. “Architecture has the greatest proportion of of masterpieces that contain little or no irony” (Petit 15). Robert Venturi and Denise Scott Brown have used irony as an aesthetic tool and as a way to engage various social groups, while Rem Koolhaas utilizes cultural satire and Peter Eisenman sees irony as a tool to be self reflective in architecture. Socratic irony has been explained with two specific spatial metaphors one which the “building of knowledge and wisdom collapse under irony’s force of gravity”, while the other metaphor states, “irony soars into the thin air of abstraction”( Petit 27). As Picasso demonstrated through his paintings, it is possible to confuse the viewer and illustrate a lack of clarity between what is false, what is true, and what is a representative of today. Le Corbusier showed irony in his work by his constant use of contradicting elements. In Notre Dame du Haut Chapel, the heavy concrete roof appears to almost be struggling against the force of gravity while being “uplifted” through religion. Rem Koolhaas famously documented satire through a dystopian narrative in the Exodus, or the Voluntary Prisoners of Architecture looking at different social contracts for various institutions. In the “Institute of Biological Transactions” Koolhaas designs a world in which a hospital becomes a series of spaces where patients lie on a conveyor belt and are brought to different doctors in different rooms. The project is meant to be seen as social commentary on institutions rather than a design to be built and implemented in society. The project triggers the viewer to look inward and examine what might be wrong with how current institutions are currently functioning in society. Irony in architecture enters a theoretical realm of the discipline and allows one to see past architecture as just “things” and “ideas” and engage in creativity and cunningness.


Our planet is suffering from natural disasters that are heightened by human influence triggering climate change across the globe. The ocean has potential to become a new type of reality for people that choose to live independent of restrictions of a traditional citizenship. Two-thirds of the world is ocean and has the possibility to become a resource for communities. Oil Platforms and cruise ships are two current examples of how seasteading is not a distant thought but a near future. Jacques Rougerie, a marine architect, stated, “It is from the ocean that will be born the destiny of civilizations to come.” Humans are running out of space on land, while simultaneously destroying the world. The question is posed, “What if the way to decrease ocean pollutions is to increase ocean populations? Is living on the ocean a way to “restore the environment, enrich the poor, cure the sick, and liberate humanity from politicians?” But will living on the ocean allow humans to solve world problems or will ecocentric hubris allow seasteaders to overlook the route of the problem?
WORKS CITED


**IMAGE SOURCES**

Project Proposal